REMARKS

Applicants respectfully request that the foregoing amendments to Claims 4-11 and 19-77 and new Claims be entered in order to avoid this application incurring a surcharge for the presence of one or more multiple dependent claims.

Respectfully submitted,

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By _____

FOLEY & LARDNER
Washington Harbour
3000 K Street, N.W., Suite 500
Washington, D.C. 20007-5109
Telephone: (202) 672-5404
Facsimile: (202) 672-5399

Stephen A. Bent
Attorney for Applicant
Registration No. 29,768

FOLEY & LARDNER

VERSIONS WITH MARKINGS TO SHOW CHANGES MADE

In the Claims:

4. (Amended) The method according to [any one of claims 1-3] claim 1 wherein said complex comprises GPI and malarial CS protein or derivative or equivalent thereof.

5. (Amended) The method according to [any one of claims 1-3] claim 1 wherein said complex comprises GPI and MSP-1 or derivative or equivalent thereof.

6. (Amended) The method according to [any one of claims 1-3] claim 1 wherein said complex comprises GPI and MSP-2 or derivative or equivalent thereof.

7. (Amended) The method according to [any one of claims 1-3] claim 1 wherein said complex comprises GPI and *Leishmanial* PSA-2 or derivative or equivalent thereof.

8. (Amended) The method according to [any one of claims 1-3] claim 1 wherein said complex comprises GPI and GP63 or derivative or equivalent thereof.

9. (Amended) The method according to [any one of claims 1-8] claim 1 wherein said GPI is a *Plasmodium* GPI.

11. (Amended) The method according to [any one of claims 1-8] claim 1 wherein said GPI comprises a structure selected from:

EtN-P-[Mα2]Mα2Mα6Mα4Gα6Ino-Y

EtN-P-[Mα2][G]Mα2Mα6Mα4Gα6Ino-Y

EtN-P-[Mα2][X]Mα2Mα6Mα4Gα6Ino-Y

EtN-P-[Mα2][EtN-P]Mα2Mα6Mα4Gα6Ino-Y

EtN-P-Mα2Mα6Mα4G-Y

Mα2Mα6Mα4G-Y

EtN-P-Mα2Mα6M-Y

EtN-P-[Mα2][G]Mα2Mα6Mα4G-Y

EtN-P-[Mα2][X]Mα2Mα6Mα4G-Y

EtN-P-[Mα2][EtN-P]Mα2Mα6Mα4G-Y

Mα2[Mα2][G]Mα2Mα2Mα6Mα4G-Y

Mα2[Mα2][X]Mα2Mα6Mα4G-Y

Mα2[Mα2][EtN-P]Mα6Mα4G-Y

Mα6Mα4Gα6Ino-Y

Mα2Mα6Mα4Gα6Ino-Y

Mα2[Mα2]Mα6Mα4Gα6Ino-Y

Mα2[Mα2][G]Mα6Mα4Gα6Ino-Y

Mα2[Mα2][X]Mα6Mα4Gα6Ino-Y

EtN-P-[Mα2][G]Mα2Mα6M-Y

EtN-P-[Mα2][X]Mα2Mα6M-Y

EtN-P-[Mα2][EtN-P]Mα2Mα6M-Y

Mα2[Mα2][G]Mα2Mα6M-Y

Mα2[Mα2][X]Mα2Mα6M-Y

Mα2[Mα2][EtN-P]Mα6M-Y

Mα2Mα6M-Y

Mα6Mα4G-Y

EtN-P-[Mα2][G]Mα2M-Y

EtN-P-[Mα2][X]Mα2M-Y

EtN-P-[Mα2][EtN-P]Mα2M-Y

or derivatives or equivalents thereof wherein EtN is ethanolamine, P is phosphate, M is mannose, G is non-N-acetylated glucosamine, [G] is any non-N-acetylated hexosamine including glucosamine, or any other nitrous-acid labile substituent, Ino is inositol or inositol-phosphoglycerol, [X] is any other substituent, a represents a-linkages which may be substituted with n-linkages wherever required, numeric values represent positional linkages which may be substituted with any other positional linkages as required, and Y is any lipid or phospholipid.

19. (Amended) The method according to claim 17 [or 18] wherein said helper T cell is a $CD4^+$ T cell.

20. (Amended) The method according to claim 19 where said $CD4^+$ T cell is a $CD4^+$, NK1.1 cell.

21. (Amended) A method of inducing, in a mammal, an immune response directed to GPI said method comprising administering to said mammal a T cell activating effective amount of GPI or derivative or equivalent thereof which GPI is capable of interacting with CDI on an immune cell to form an association with CDI which association activates helper T cells.

22. (Amended) The method according to claim 21 wherein said helper T cell is a $CD4^+$ cell.

23. (Amended) ~~The method according to claim 22 wherein said $CD4^+$ T cell~~ is a $CD4^+$ $NK1.1^+$ T cell.

24. (Amended) The method according to [any one of claims 21-23] claim 22 wherein said GPI is *Plasmodium.*

25 (Amended) The method according to claim 24 wherein said *Plasmodium is P. falciparum*.

26. (Amended) The method according to [any one of claims 21-23] claim 22 wherein said GPI comprises a structure selected from:

EtN-P-[Mα2]Mα2Mα6Mα4Gα6Ino-Y
EtN-P-[Mα2][G]Mα2Mα6Mα4Gα6Ino-Y
EtN-P-[Mα2][X]Mα2Mα6Mα4Gα6Ino-Y
EtN-P-[Mα2][EtN-P]Mα2Mα6Mα4Gα6Ino-Y
EtN-P-Mα2Mα6Mα4G-Y
Mα2Mα6Mα4G-Y
EtN-P-Mα2Mα6M-Y
EtN-P-[Mα2][G]Mα2Mα6Mα4G-Y
EtN-P-[Mα2][X]Mα2Mα6Mα4G-Y
EtN-P-[Mα2][EtN-P]Mα2Mα6Mα4G-Y
Mα2[Mα2][G]Mα2Mα6Mα4G-Y

Mα2[Mα2][X]Mα2Mα6Mα4G-Y

Mα2[Mα2][EtN-P]Mα6Mα4G-Y

Mα6Mα4Gα6Ino-Y

Mα2Mα6Mα4Gα6Ino-Y

Mα2[Mα2]Mα6Mα4Gα6Ino-Y

Mα2[Mα2][G]Mα6Mα4Gα6Ino-Y

Mα2[Mα2][X]Mα6Mα4Gα6Ino-Y

EtN-P-[Mα2][G]Mα2Mα6M-Y

EtN-P-[Mα2][X]Mα2Mα6M-Y

EtN-P-[Mα2][EtN-P]Mα2Mα6M-Y

~~Mα2[Mα2][G]Mα2Mα6M-Y~~

Mα2[Mα2][X]Mα2Mα6M-Y

Mα2[Mα2][EtN-P]Mα6M-Y

Mα2Mα6M-Y

Mα6Mα4G-Y

EtN-P-[Mα2][G]Mα2M-Y

EtN-P-[Mα2][X]Mα2M-Y

EtN-P-[Mα2][EtN-P]Mα2M-Y

or derivatives or equivalents thereof wherein EtN is ethanolamine, P is phosphate, M is mannose, G is non-N-acetylated glucosamine, [G] is any non-N-acetylated hexosamine including glucosamine, or any other nitrous-acid labile substituent, Ino is inositol or inositol-phosphoglycerol, [X] is any other substituent, α represents α-linkages which may be substituted with β-linkages wherever required, numeric values represent positional linkages which may be substituted with any other positional linkages as required, and Y is any lipid or phospholipid.

27. (Amended) The method according to claim [26] 27 wherein said lipid is diacylglycerol, alkylacyglycerol, monoalkylglycerol, ceramide or sphingolipid.

28. (Amended) The method according to claim [26] 27 wherein said phospholipid is phosphatidylethanolamine, phosphatidylcholine or phosphatidylserine.

29. (Amended) A method of inducing, in a mammal, an immune response directed to an antigen, said method comprising administering to said mammal a helper T cell activating effective amount of GPI or derivative or equivalent thereof complexed to said antigen, which GPI-antigen complex is capable of interacting with CD1 on an immune cell to form an association with CD1 which association activates helper T cells.

30. (Amended) The method according to claim [29] 30 wherein said helper T cell is a $CD4^+$ T cell.

31. (Amended) The method according to claim [30] 31 wherein said $CD4^+$ T cell is a $CD4^+$ $NK1.1^+$ T cell.

32. (Amended) ~~The method according to [any one of claims 29-31]~~ claim 30 wherein said antigen is malarial CS protein or derivative or equivalent thereof.

33. (Amended) The method according to [any one of claims 29-31] claim 30 wherein said antigen is MSP-1 or derivative or equivalent thereof.

34. (Amended) The method according to [any one of claims 29-31] claim 30 wherein said antigen is MSP-2 or derivative or equivalent thereof.

35. (Amended) The method according to [any one of claims 29-31] claim 30 wherein said antigen is *Leishmanial* PSA-2 or derivative or equivalent thereof.

36. (Amended) The method according to [any one of claims 29-31] claim 30 wherein said antigen is GP63 or derivative or equivalent thereof.

37. (Amended) The method according to [any one of claims 29-36] claim 30 wherein said GPI comprises a structure selected from:

EtN-P-[Mα2]Mα2Mα6Mα4Gα6Ino-Y

EtN-P-[Mα2][G]Mα2Mα6Mα4Gα6Ino-Y

EtN-P-[Mα2][X]Mα2Mα6Mα4Gα6Ino-Y

EtN-P-[Mα2][EtN-P]Mα2Mα6Mα4Gα6Ino-Y

EtN-P-Mα2Mα6Mα4G-Y

Mα2Mα6Mα4G-Y

EtN-P-Mα2Mα6M-Y

EtN-P-[Mα2][G]Mα2Mα6Mα4G-Y

EtN-P-[Mα2][X]Mα2Mα6Mα4G-Y

EtN-P-[Mα2][EtN-P]Mα2Mα6Mα4G-Y

Mα2[Mα2][G]Mα2Mα6Mα4G-Y

Mα2[Mα2][X]Mα2Mα6Mα4G-Y

Mα2[Mα2][EtN-P]Mα6Mα4G-Y

Mα6Mα4Gα6Ino-Y

Mα2Mα6Mα4Gα6Ino-Y

Mα2[Mα2]Mα6Mα4Gα6Ino-Y

Mα2[Mα2][G]Mα6Mα4Gα6Ino-Y

Mα2[Mα2][X]Mα6Mα4Gα6Ino-Y

EtN-P-[Mα2][G]Mα2Mα6M-Y

EtN-P-[Mα2][X]Mα2Mα6M-Y

EtN-P-[Mα2][EtN-P]Mα2Mα6M-Y

Mα2[Mα2][G]Mα2Mα6M-Y

Mα2[Mα2][X]Mα2Mα6M-Y

Mα2[Mα2][EtN-P]Mα6M-Y

Mα2Mα6M-Y

Mα6Mα4G-Y

EtN-P-[Mα2][G]Mα2M-Y

EtN-P-[Mα2][X]Mα2M-Y

EtN-P-[Mα2][EtN-P]Mα2M-Y

or derivatives or equivalents thereof wherein EtN is ethanolamine, P is phosphate, M is mannose, G is non-N-acetylated glucosamine, [G] is any non-N-acetylated hexosamine including glucosamine, or any other nitrous-acid labile substituent, Ino is inositol or inositol-phosphoglycerol, [X] is any other substituent, α represents α-linkages which may be substituted with β-1inkages wherever required, numeric values represent positional linkages which may be substituted with any other positional linkages as required, and Y is any lipid or phospholipid.

38. (Amended) The method according to claim [37] 38 wherein said lipid is diacylglycerol, alkylacyglycerol, monoalkylglycerol, ceramide or sphingolipid.

39. (Amended) The method according to claim [37] 38 wherein said phospholipid is phosphatidylethanolamine, phosphatidylcholine or phosphatidylserine.

40. (Amended) The method according [any one of claims 21-39] to claim 30 wherein said activated helper T cell provides B cell help.

41. (Amended) The method according to [any one of claims 21-39] claim 30 wherein said activated T cells induce or otherwise upregulate a TH1 type response.

42. (Amended) The method according to [any one of claims 21-39] claim 30 wherein said activated T cells induce or otherwise upregulate a TH2 type response.

43. (Amended) A method for the treatment and/or prophylaxis of a mammalian disease condition comprising administering to said mammal an effective amount of GPI or derivative or equivalent thereof or a complex comprising said GPI or derivative or equivalent thereof which GPI or GPI-complex is capable of interacting with CD1 on an immune cell to form an association with the CD1 which association activates helper T cells.

44. (Amended) The method according to claim [43] 44 wherein said helper T cell is a $CD4^+$ T cell.

45. (Amended) The method according to claim [44] 45 wherein said $CD4^+$ T cell is a $CD4^+$ $NK1.1^+$ T cell.

46. (Amended) The method according to [any one of claims 43-45] claim 44 wherein said activated T cell provides B cell help.

47. (Amended) The method according to [any one of claims 43-45] claim 44 wherein said activated T cells induce or otherwise upregulate a TH1 type response.

48. (Amended) The method according to [any one of claims 43-45] claim 44 wherein said activated T cells induce or otherwise upregulate a TH2 type response.

49. (Amended) A method for the treatment and/or prophylaxis of a mammalian disease condition characterized by microorganism infection, said method comprising administering to said mammal an effective amount of GPI or derivative or equivalent thereof or a complex comprising said GPI or derivative or equivalent thereof which GPI or GPI complex is capable of interacting with CD1 on an immune cell to form an association with CD1 which association activates helper T cells.

50. (Amended) The method according to claim [49] 50 wherein said microorganism infection is a parasitic infection.

51. (Amended) The method according to claim [50] 51 wherein said complex comprises GPI and malarial CS protein or derivative or equivalent thereof.

52. (Amended) The method according to claim [50] 51 wherein said complex comprises GPI and MSP-1 or derivative or equivalent thereof.

53. (Amended) The method according to claim [50] 51 wherein said complex comprises GPI and MSP-2 or derivative or equivalent thereof.

54. (Amended) The method according to claim [50] 51 wherein said complex comprises *Leishmanial* PSA-2 or derivative or equivalent thereof.

55. (Amended) The method according to claim [50] 51 wherein said complex comprises GPI and GP63 or derivative or equivalent thereof.

56. (Amended) The method according to [any one of claims 49-55] claim 50 wherein said GPI comprises a structure selected from:

EtN-P-[Mα2]Mα2Mα6Mα4Gα6Ino-Y

EtN-P-[Mα2][G]Mα2Mα6Mα4Gα6Ino-Y

EtN-P-[Mα2][X]Mα2Mα6Mα4Gα6Ino-Y

EtN-P-[Mα2][EtN-P]Mα2Mα6Mα4Gα6Ino-Y

EtN-P-Mα2Mα6Mα4G-Y

Mαt2Mα6Mα4G-Y

EtN-P-Mα2Mα6M-Y

EtN-P-[Mα2][G]Mα2Mα6Mα4G-Y

EtN-P-[Mα2][X]Mα2Mα6Mα4G-Y

EtN-P-[Mα2][EtN-P]Mα2Mα6Mα4G-Y

Mα2[Mα2][G]Mα2Mα6Mα4G-Y

Mα2[Mα2][X]Mα2Mα6Mα4G-Y

Mα2[Mα21[EtN-P]Mα6Mα4G-Y

Mα6Mα4Gα6Ino-Y

Mα2Mα6Mα4Gα6Ino-Y

Mα2[Mα2]Mα6Mα4Gα6Ino-Y

Mα2[Mα2][G]Mα6Mα4Gα6Ino-Y

Mα2[Mα2][X]Mα6Mα4Gα6Ino-Y

EtN-P-[Mα2][G]Mα2Mα6M-Y

EtN-P-[Mα2][X]Mα2Mα6M-Y

EtN-P-[Mα2I[EtN-P]Mα2Mα6M-Y

Mα2[Mα2][G]Mα2Mα6M-Y

Mα2[Mα2][X]Mα2Mα6M-Y

Mα2[Mα2][EtN-P]Mα6M-Y

Mα2Mα6M-Y

Mα6Mα4G-Y

EtN-P-[Mα2][G]Mα2M-Y

EtN-P-[Mα2][X]Mα2M-Y

EtN-P-[Mα2][EtN-P]Mα2M-Y

or derivatives or equivalents thereof wherein EtN is ethanolamine, P is phosphate, M is mannose, G is non-N-acetylated glucosamine, [G] is any non-N-acetylated hexosamine including glucosamine, or any other nitrous-acid labile substituent, Ino is inositol or inositol-phosphoglycerol, [X]is any other substituent, α represents α-linkages which may be substituted with β-1inkages wherever required, numeric values represent positional linkages which may be substituted with any other positional linkages as required, and Y is any lipid or phospholipid.

57. (Amended) The method according to claim [56] 57 wherein said lipid is diacylglycerol, alkylacyglycerol, monoalkylglycerol, ceramide or sphingolipid.

58. (Amended) The method according to claim [56] 57 wherein said phospholipid is phosphatidylethanolamine, phosphatidylcholine or phosphatidylserine.

59. (Amended) The method according to claim [49] 50 wherein said parasitic infection is a *Plasmodium* infection.

60. (Amended) The method according to claim [59] 60 wherein said *Plasinodium* is P. *falciparum*.

61. The method according to claim [49] 50 wherein said parasitic infection is a *Leishmania* infection.

62. (Amended) A method for the treatment and/or prophylaxis of a mammalian disease condition characterized by the insufficiency or absence of an appropriate TH1 response said method comprising administering to said mammal an effective amount of GPI or derivative or equivalent thereof or a complex comprising said GPI or derivative or equivalent thereof which GPI or GPI complex is capable of interacting with CD1 on an immune cell to form an association with CD1 which association induces or otherwise upregulates a TH1 response.

63. (Amended) The method according to claim [62] 63 wherein said disease condition is Leishmaniasis, a neoplastic condition or cancer.

64. (Amended) A method for the treatment and/or prophylaxis of a mammalian disease condition characterized by the insufficiency or absence of an appropriate TH2 response said method comprising administering to said mammal an effective amount of GPI or derivative or equivalent thereof or a complex comprising said GPI or derivative or equivalent thereof which GPI or GPI complex is capable of interacting with CD1 on an immune cell to form an association with CD1 which association induces or otherwise upregulates a TH2 response.

65. (Amended) The method according to claim [64] 65 said disease condition is cerebral malaria, type I diabetes, autoimmune arthritis or systemic lupus erythromatosis.

66. (Amended) Use of a composition comprising GPI or derivative or equivalent thereof or a complex comprising GPI or derivative or equivalent thereof in the manufacture of a medicament for the therapeutic and/or prophylactic treatment of a mammalian disease condition wherein said GPI or GPI complex is capable of interacting with CD1 on an immune cell to form an association with CD1 which association activates helper T cells.

67. (Amended) Use according to claim [66] 67 wherein said mammalian disease condition is a microorganism infection.

68. (Amended) Use according to claim [67] 68 wherein said microorganism is *Plasmodium*.

69. (Amended) Use according to claim [68] 69 wherein said *Plasmodium* is P. *falciparum*.

70. (Amended) Use according to claim [67] 68 wherein said microorganism is *Leishmania*.

71. (Amended) Use according to claim [66] 67 wherein said disease condition is characterized by the insufficiency or absence of an appropriate TH1 response.

72. (Amended) Use according to claim [71] 72 wherein said disease condition is Leishmaniasis, a neoplastic condition or cancer.

73. (Amended) Use according to claim [66] 67 wherein said disease condition is characterized by the insufficiency or absence of an appropriate TH2 response.

74. (Amended) Use according to claim [73] 74 wherein said disease condition is cerebral malaria, type I diabetes, autoimmune arthritis or systemic lupus erythromatosis.

75. (Amended) A composition capable of activating helper T cells, said composition comprising a GPI or derivative or equivalent thereof or a complex

comprising GPI or derivative or equivalent thereof which GPI or GPI-complex is capable of interacting with CD1 on an immune cell to form an association with CD 1 which association activates helper T cells.

76. (Amended) A vaccine composition comprising as the active component a GPI or derivative or equivalent thereof or a complex comprising GPI or derivative or equivalent thereof which GPI or GPI-complex is capable of interacting with CD1 on an immune cell to form an association with CD1 which association activates helper T cells.

77. (Amended) A pharmaceutical composition capable of activating helper T cells, said composition comprising a GPI or derivative or equivalent thereof or a complex comprising GPI or derivative or equivalent thereof which GPI or GPI-complex is capable of interacting with CD1 on an immune cell to form an association with CD1, which association activates helper T cells, together with one or more pharmaceutically acceptable carriers and/or diluents.

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